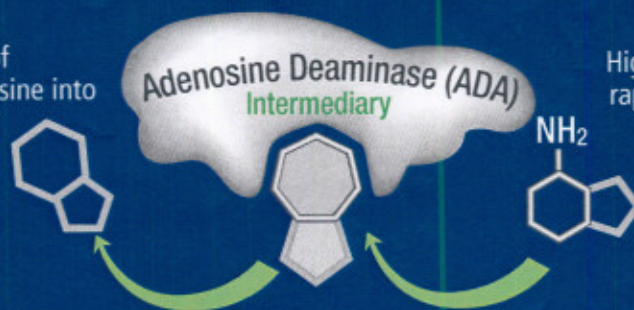


# Nipent®

The distinctive purine analog with a unique mechanism of action.

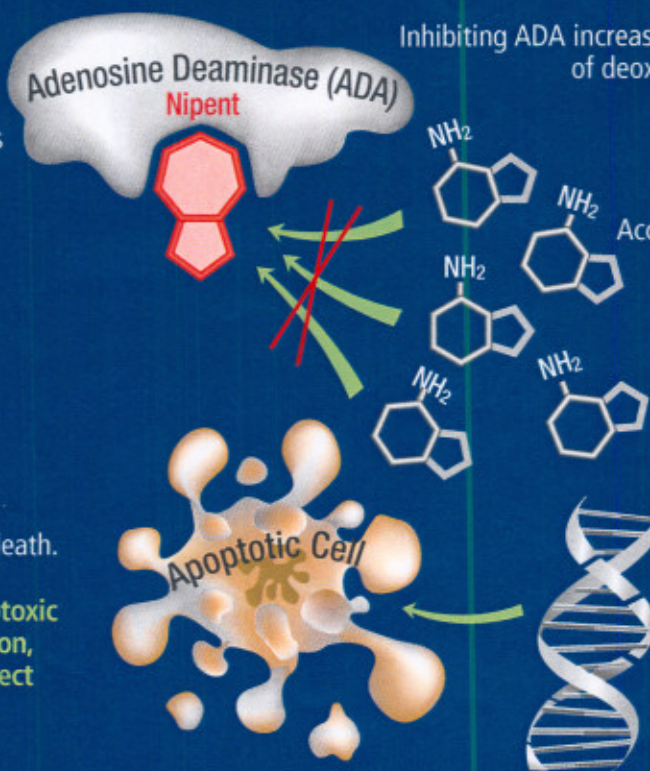
ADA catalyzes conversion of deoxyadenosine and adenosine into deoxyinosine and inosine.<sup>1,2</sup>



High ADA activity characterizes rapidly proliferating T cells and B-cell malignancies.<sup>1,2</sup>

Unlike most purine analogs, Nipent tightly binds to and inhibits ADA, the enzyme essential for purine metabolism.<sup>1</sup>

Nipent prevents the enzymatic action of ADA by competitively blocking its intermediary's activation site.<sup>1</sup>



Inhibiting ADA increases intracellular accumulation of deoxyadenosine and adenosine.<sup>1,2</sup>

Adenosine buildup potentiates TNF inhibition.<sup>3</sup>

Accumulated deoxyadenosine is phosphorylated into dATP.<sup>2</sup>

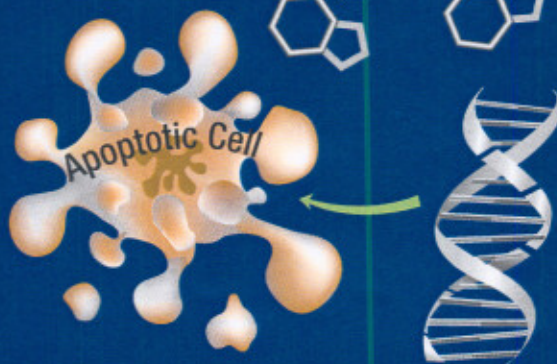
dATP inhibition of RR causes a relative deficiency of other dNTPs.<sup>1</sup>

dNTP deficiency causes DNA breaks to appear.<sup>2</sup>

Unrepaired breaks cause DNA synthesis to fail.<sup>1,2</sup>

Deteriorating DNA repair mechanisms lead to cell death.

Nipent is selectively cytotoxic to the leukemic population, exhibiting little or no effect on stem cells.<sup>4</sup>



#### KEY

ADA = adenosine deaminase  
dATP = deoxyadenosine triphosphate  
RR = ribonucleotide reductase  
TNF = tumor necrosis factor  
dNTP = deoxynucleotide triphosphate

Through selective, potent, and strong ADA inhibition, Nipent retards DNA repair mechanisms and induces apoptosis while inhibiting TNF.

Nipent is indicated as first-line treatment for hairy cell leukemia.



SuperGen, Inc.  
4140 Dublin Boulevard, Suite 200  
Dublin, CA 94568

#### References

1. Kane BJ, Kuhn JG, Roush MK. Pentostatin: an adenosine deaminase inhibitor for the treatment of hairy cell leukemia. *Ann Pharmacother*. 1992;26:939-947.
2. Chu E, Mota AC, Fogarasi MC. Antimetabolites. In: DeVita VT Jr, Hellman S, Rosenberg SA, eds. *Cancer Principles & Practice of Oncology*. 6th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2001:388-415.
3. Le Moine O, Quertinmont E, Gulbis B, Deviere J. Blunted anti-inflammatory response to adenosine in alcoholic cirrhosis. *J Hepatol*. 1999;31:457-463.
4. Aye MT, Dunne JV. Effect of 2'-deoxycytidine on erythroid, granulocytic, and T-lymphocyte colony growth. *Blood*. 1981;58:1043-1046.

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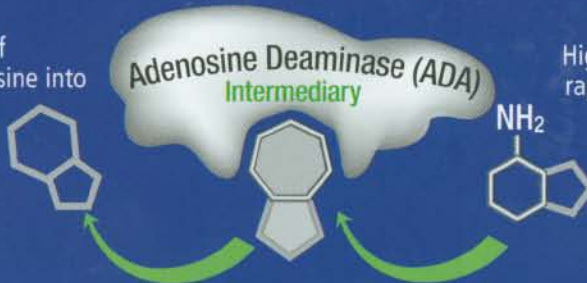
**Nipent®**  
10 mg  
Pentostatin for Injection



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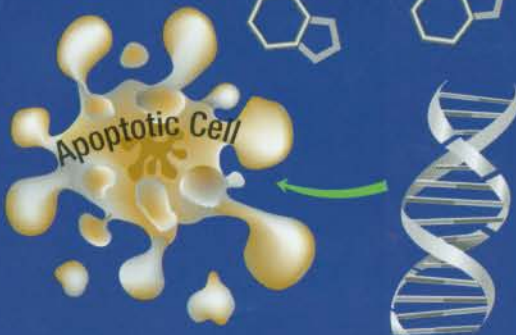
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Please see full prescribing information, including boxed warning, on back.

#### References

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